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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/016,224	11/01/2001	Shunpei Yamazaki	07977/288001/US5290/5981	2987

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EXAMINER	
TANG, SON M	

ART UNIT	PAPER NUMBER
2632	

DATE MAILED: 11/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/016,224	YAMAZAKI, SHUNPEI	
	Examiner	Art Unit	
	Son M. Tang	2632	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 June 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *3-68* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *3-68* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *7/27/05*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 3-6, 19-20, 22-23, 25-26, 29-30, 33-34 and 37-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bauer et al. [US 6,642,840; Bauer] in view of Zhang [US 5,949,107].

Regarding to claims 3-4: Bauer discloses a vehicle comprising:

-a exterior side mirror [330] and interior back mirror [333];

-a camera [26];

-a display device [32] mounted in the side mirror 330 and back mirror 333, wherein the display device displays information read from the camera [shown in Fig. 1-2, 4 col. 10, lines 45-52], Bauer does not specifically disclose that said display device comprising a substrate, a first thin film transistor (TFT) formed over a substrate, a pixel electrode electrically connected to the (TFT) and driver circuit comprising a second (TFT) transistor formed over the substrate and operationally connected to the (TFT). **Zhang** teaches a vehicle navigational display system [shown in Fig. 12c], wherein the display comprising a substrate that an active matrix region formed on a substrate and consisting of a first (TFT) met by N-channel (TFT), a pixel electrode electrically

connected to the N-channel(TFT) [see col. 13, lines 50-67], and a driver circuit comprising a second (TFT) met by P-channel (TFT) that operationally connected to the first (TFT) [see col. 4,lines 54-67]. It would have been obvious of one having ordinary skill in the art at the time of the claimed invention to use (TFTs) formed over the substrate of display device as taught by Zhang into the system of Lang, for the purpose of enhancing reliability and less labor require, since both (TFTs) formed on the same substrate.

Regarding to claims 5-6: Bauer discloses a vehicle comprising:

-a exterior side mirror [330] and/or interior back mirror [333];

-a camera [26];

-a display device [32] mounted in the side mirror 330 and back mirror 333;

-a central processing unit [30];

-a video signal processing section [74, 76];

-a control circuit [76, 80] [as shown in Fig. 1-2, 4 and col. 10, lines 45-52, and col. 9, lines 38-55], Bauer does not specifically disclosing that the control circuit provides video signal and timing signal to the display device, since control circuit [76,80] performs the display pixel luminance mapping control, which compress image data of camera system output to a comfortable image on the display [as cited in col. 9, lines 43-50], the compress image signal requires timing function. Therefore, it would have been obvious of one having ordinary skill in the art to recognize that, the control circuit function to provide video signal and timing signal.

Bauer does not specifically disclose that said display device comprising a substrate, a first thin film transistor (TFT) formed over a substrate, a pixel electrode electrically connected to the (TFT) and driver circuit comprising a second (TFT) transistor formed over the substrate and operationally connected to the (TFT). Zhang teaches a vehicle navigational display system [shown in Fig. 12c], wherein the display comprising a substrate that an active matrix region formed on a substrate and consisting of a first (TFT) met by N-channel (TFT), a pixel electrode electrically connected to the N-channel(TFT) [see col. 13, lines 50-67], and a driver circuit comprising a second (TFT) met by P-channel (TFT) that operationally connected to the first (TFT) [see col. 4,lines 54-67]. It would have been obvious of one having ordinary skill in the art at the time of the claimed invention to use (TFTs) formed over the substrate of display device as taught by Zhang into the system of Lang, for the purpose of enhancing reliability and less labor require, since both (TFTs) formed on the same substrate.

Regarding to claims 19-20, 22-23, 25-26, 29-30, 33-34, 37-38:

Bauer further discloses that display device can be a liquid crystal device or number other technologies can be implement into the system [see col. 10, lines 1-5], but lacks of specific that display device is an electroluminescent display device. Examiner takes official notice that it is well known in electrical art that electroluminescent display is one of other type of display, therefore it would have been obvious of one having ordinary skill in the art at the time the invention was made, to have the electroluminescent display device due to the factors such as current cost, user preference, application environment and/or availability of parts at the time of implementation.

3. Claims 7-10, 18, 21, 24, 28, 32, 36, 39, 42, 45, 48, 63, 66, 40-41, 43-44 and 46-47 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bauer et al. in view of Zhang, and further in view of Gauthier et al. [US 5,303,205; Gauthier].

Regarding to claims 7-10: Bauer discloses a vehicle comprising:

-a exterior side mirror [330] and/or interior back mirror [333];

-a camera [26];

-a display device [32] mounted in the side mirror 330 and back mirror 333;

-a central processing unit [30];

-a video signal processing section [74, 76];

-a control circuit [76, 80] [as shown in Fig. 1-2, 4 and col. 10, lines 45-52, and col. 9, lines 38-55], Bauer does not specifically disclosing that the control circuit provides video signal and timing signal to the display device, since control circuit [76,80] performs the display pixel luminance mapping control, which compress image data of camera system output to a comfortable image on the display [as cited in col. 9, lines 43-50], the compress image signal requires timing function. Therefore, it would have been obvious of one having ordinary skill in the art to recognize that, the control circuit function to provide video signal and timing signal.

Mauer does not specifically disclose that said display device comprising a substrate, a first thin film transistor (TFT) formed over a substrate, a pixel electrode electrically connected to the (TFT) and driver circuit comprising a second (TFT) transistor formed over the substrate and operationally connected to the (TFT). **Zhang** teaches a vehicle navigational display system [shown in Fig. 12c], wherein the display comprising a substrate that an active matrix region

formed on a substrate and consisting of a first (TFT) met by N-channel (TFT), a pixel electrode electrically connected to the N-channel(TFT) [see col. 13, lines 50-67], and a driver circuit comprising a second (TFT) met by P-channel (TFT) that operationally connected to the first (TFT) [see col. 4,lines 54-67]. It would have been obvious of one having ordinary skill in the art at the time of the claimed invention to use (TFTs) formed over the substrate of display device as taught by Zhang into the system of Lang, for the purpose of enhancing reliability and less labor require, since both (TFTs) formed on the same substrate.

Bauer lacks in specifically disclosing a distance sensor to another vehicle, Gauthier teaches a vehicle distance measuring system comprises a distance sensor 60 [Fig. 1-3, col. 6, lines 56-66]. It would have been obvious of one having ordinary skill in the art at the time of the claimed invention, to have a distance sensor as taught by Gauthier into the system of Bauer, for the benefit of increase safety.

Regarding to claims 18, 21, 24, 28, 32, 36, 39, 42, 45, 48, 63 and 66: Bauer and the combination disclose all the limitation as described above, but lacks in specifically disclosing that wherein a half mirror is provide in the side mirror/back mirror. Gauthier further teaches a half mirror display (interior/exterior mirror) [as cited in col. 10, lines 30-33 and col. 7, lines 13-15]. It would have been obvious of one having ordinary skill in the art at the time of the claimed invention, to have half mirror display as taught by Gauthier into the system of Bauer for the benefit of safety, where full coverage mirror image may blind other conventional zone image.

Regarding to claims 40-41, 43-44, 46-47: Bauer further discloses that display device can be a liquid crystal device or number other technologies can be implement into the system [see col. 10, lines 1-5], but lacks of specific that display device is an electroluminescent display

device. It is known in electrical art that electroluminescent display is one of other type of display, therefore it would have been obvious of one having ordinary skill in the art at the time the invention was made, to have the electroluminescent display device due to the factors such as current cost, user preference, application environment and/or availability of parts at the time of implementation.

4. Claims 11-14, 52-53, 55-56, 58-59, 61-62 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bauer et al. in view of Zhang, and further in view of Lee [US 5,680,123].

Regarding to claims 11-14: Bauer discloses a vehicle comprising:

-a exterior side mirror [330] and/or interior back mirror [333];

-a camera [26];

-a display device [32] mounted in the side mirror 330 and back mirror 333;

-a central processing unit [30];

-a video signal processing section [74, 76];

-a control circuit [76, 80] [as shown in Fig. 1-2, 4 and col. 10, lines 45-52, and col. 9, lines 38-555], Bauer does not specifically disclosing that the control circuit provides video signal and timing signal to the display device, since control circuit [76,80] performs the display pixel luminance mapping control, which compress image data of camera system output to a comfortable image on the display [as cited in col. 9, lines 43-50], the compress image signal requires timing function. Therefore, it would have been obvious of one having ordinary skill in the art to recognize that, the control circuit function to provide video signal and timing signal.

Mauer does not specifically disclose that said display device comprising a substrate, a first thin film transistor (TFT) formed over a substrate, a pixel electrode electrically connected to the (TFT) and driver circuit comprising a second (TFT) transistor formed over the substrate and operationally connected to the (TFT). Zhang teaches a vehicle navigational display system [shown in Fig. 12c], wherein the display comprising a substrate that an active matrix region formed on a substrate and consisting of a first (TFT) met by N-channel (TFT), a pixel electrode electrically connected to the N-channel(TFT) [see col. 13, lines 50-67], and a driver circuit comprising a second (TFT) met by P-channel (TFT) that operationally connected to the first (TFT) [see col. 4,lines 54-67]. It would have been obvious of one having ordinary skill in the art at the time of the claimed invention to use (TFTs) formed over the substrate of display device as taught by Zhang into the system of Lang, for the purpose of enhancing reliability and less labor require, since both (TFTs) formed on the same substrate.

Bauer does not specifically disclosing an impact sensor. In an analogous invention to Lee whose teaches a vehicle monitoring system comprises an impact sensor 53 in combination with cameras [as cited in Fig. 5, col. 4, lines 27-35], since impact sensor is an additional sensor in the monitoring system for enhancing safety and accurate. Therefore, one having ordinary skill in the art at the time the invention was made would be motivated to combine, the impact sensor suggested by Lee into the system of Bauer in order to provide more warning information.

Regarding to claims 52-53, 55-56, 58-59, 61-62: Bauer further discloses that display device can be a liquid crystal device or number other technologies can be implement into the system [see col. 10, lines 1-5], but lacks of specific that display device is an electroluminescent display device. It is known in electrical art that electroluminescent display is one of other type of

display, therefore it would have been obvious of one having ordinary skill in the art at the time the invention was made, to have the electroluminescent display device due to the factors such as current cost, user preference, application environment and/or availability of parts at the time of implementation.

5. Claims 51, 54, 57 and 60 rejected under 35 U.S.C. 103(a) as being unpatentable over Bauer et al., Zhang and Lee as applied to claims 11-14 above, and further in view of Gauthier.

Regarding to claims 51, 54, 57, 60: Bauer and the combination disclose all the limitation as described above, but lacks in specifically disclosing that wherein a half mirror is provide in the side mirror/back mirror. Gauthier further teaches a half mirror display (interior/exterior mirror) [as cited in col. 10, lines 30-33 and col. 7, lines 13-15]. It would have been obvious of one having ordinary skill in the art at the time of the claimed invention, to have half mirror display as taught by Gauthier into the system of Bauer for the benefit of safety, where full coverage mirror image may blind other conventional zone image.

6. Claims 15-16, 64-65 and 67-68 are rejected under 35 U.S.C. 103(a) as being unpatentable Bauer et al. in view of Zhang and Lee [US 5,680,123] and further in view of Reid [US 5,027,104].

Regarding to claims 15-16: Bauer discloses a vehicle comprising:

-a exterior side mirror [330] and/or interior back mirror [333];

-a camera [26];

-a display device [32] mounted in the side mirror 330 and back mirror 333;

-a central processing unit [30];

-a video signal processing section [74, 76];

-a control circuit [76, 80] [as shown in Fig. 1-2, 4 and col. 10, lines 45-52, and col. 9, lines 38-55], Bauer does not specifically disclosing an impact sensor. In an analogous invention to Lee whose teaches a vehicle monitoring system comprises an impact sensor 53 in combination with cameras [as cited in Fig. 5, col. 4, lines 27-35], since impact sensor is an additional sensor in monitoring system for enhancing safety and accurate. Therefore, one having ordinary skill in the art at the time the invention was made would be motivated to combine the impact sensor suggested by Lee into the system of Bauer in order to provide more warning information.

Mauer does not specifically disclose that said display device comprising a substrate, a first thin film transistor (TFT) formed over a substrate, a pixel electrode electrically connected to the (TFT) and driver circuit comprising a second (TFT) transistor formed over the substrate and operationally connected to the (TFT). Zhang teaches a vehicle navigational display system [shown in Fig. 12c], wherein the display comprising a substrate that an active matrix region formed on a substrate and consisting of a first (TFT) met by N-channel (TFT), a pixel electrode electrically connected to the N-channel(TFT) [see col. 13, lines 50-67], and a driver circuit comprising a second (TFT) met by P-channel (TFT) that operationally connected to the first (TFT) [see col. 4,lines 54-67]. It would have been obvious of one having ordinary skill in the art at the time of the claimed invention to use (TFTs) formed over the substrate of display device as taught by Zhang into the system of Lang, for the purpose of enhancing reliability and less labor require, since both (TFTs) formed on the same substrate.

Bauer does not specifically disclosing that an audio device having a speaker and microphone. It is clear that, most video camera equipped with an audio microphone for receiving audio signal, Reid teaches a vehicle security system that comprises camera that equipped with microphones so that audio signals can be received and processed [col. 2, lines 8-10]. Therefore, it would have been obvious of one having ordinary skill in the art at the time the invention was made, to combine the equipped microphone camera system of Reid with Bauer system, in order to provide warning image along with actual sound, so operator have a better sense of a situation. And since they both information signal which can be processed in the same manner in the central process unit.

Regarding to claims 64-65 and 67-68: Bauer further discloses that display device can be a liquid crystal device or number other technologies can be implement into the system [see col. 10, lines 1-5], but lacks of specific that display device is an electroluminescent display device. It is known in electrical art that electroluminescent display is one of other type of display, therefore it would have been obvious of one having ordinary skill in the art at the time the invention was made, to have the electroluminescent display device due to the factors such as current cost, user preference, application environment and/or availability of parts at the time of implementation.

7. Claims 63 and 66 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bauer et al., Zhang, Lee and Reid and further in view of Gauthier.

Regarding to claims 63 and 66: Bauer and the combination disclose all the limitation as described above, but lack in specifically disclosing that wherein a half mirror is

provide in the side mirror/back mirror. Gauthier further teaches a half mirror display (interior/exterior mirror) [as cited in col. 10, lines 30-33 and col. 7, lines 13-15]. It would have been obvious of one having ordinary skill in the art at the time of the claimed invention, to have half mirror display as taught by Gauthier into the system of Bauer for the benefit of safety, where full coverage mirror image may blind other conventional zone image.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Narange [US 6,146,716] and Matsumoto [US 5,396,084].

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Son M. Tang whose telephone number is (571)272-2962. The examiner can normally be reached on 4/9 First Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel J. Wu can be reached on (571)272-2964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Son Tang

DANIEL WU
SUPERVISORY PATENT EXAMINER
10/14/05